

REMARKS

The Office Action of June 19, 2007 has been received and its contents carefully considered.

The present application discloses an arrangement for completing numerical expressions that are presented in incomplete form. If a person reads a sentence such as "The rock weighs 50 kilos," the person knows that "kilograms" is meant. Until the present invention, though, a machine could not tell whether "kilos" in this sentence stood for "kilometers" or "kilograms," or perhaps some other kilo-type units of measure like "kilowatts" or perhaps "kilometers." Using the techniques disclosed in the present application, a computer can now resolve such ambiguities.

The present Amendment revises the claims in response to the objections in section 2 of the Office Action (although it would appear that the objection to "claim 19" should refer, instead, to claim 1). In view of the revisions to the claims, it is respectfully submitted that the objection should be withdrawn.

The present Amendment also adds a new dependent claim 9 to further protect the invention. Claim 9 specifically recites that the "incomplete numerical expression" of claim 1 "includes the prefix for the basic unit of measurement without the basic unit of measurement itself."

Section 4 of the Office Action rejects claim 1 for indefiniteness, on the ground that it omits essential steps and is therefore incomplete. The Office Action comments that claim 1 recites "extracting means" but lacks mention of extraction taking place using execution by or in natural language as is taught at lines 16-20 on page 7 of the present application. This rejection is respectfully traversed. An ordinarily skilled person who read

the cited passage on page 7 would understand that it means simply that known natural language processing technologies can be used for the extraction. That is, the cited passage on page 7 tells how the extraction can be accomplished, and does not represent an essential step in addition to the extraction. The rejection should therefore be withdrawn.

Section 5 of the Office Action rejects claim 7 for indefiniteness, on the ground that reciting that the “record” is a “document” contradicts claim 1. This rejection is also respectfully traversed. A “record” can be a “document” but is not necessarily a document. A “record” might be a file stored on a floppy disk, for example. Either a file on a floppy disk or a document may contain an incomplete numerical expression. No contradiction is present.

Section 7 of the Office Action rejects the claims for obviousness on the basis of a patent to Miller et al (which will hereafter be called dimply “Miller”) in view of a patent to Ikeno. The Office Action takes the position that Millar discloses most of what is recited in claim 1, and Ikeno discloses a document database. Applicants disagree with the comments in the Office Action about the Miller reference, and respectfully submit that the invention defined by claim 1 would not have been obvious, to an ordinarily skilled person, from the Miller and Ikeno references.

The Miller reference is directed to an arrangement that completes words as text is being typed into a miniature computer. An example is shown in Miller’s Figures 2A and 2B, which show that an operator can type part of a word and then be shown a menu with possibilities that the operator can select. There is no hint of a system that automatically “adds the basic unit of measurement to the prefix in the inputted record ...” in accordance

with the last few lines of claim 1. This is not surprising, since various features that the Office Action purports to find in Miller are simply not there.

For example, claim 1 recites an “an attribute dictionary,” a “co-occurrence word dictionary,” and an “omission completion means.” The attribute dictionary “stores attribute information and unit system information therein, the attribute information including attribute names ..., attribute contents ..., and basic units of measurement ..., the unit system information including prefixes ..., and multiples indicative of meanings of the prefixes.” The co-occurrence word dictionary “stores therein information including attribute names ... and co-occurrence words ...”. The “omission completion means” completes an incomplete numerical expression “by adding a basic unit of measurement to a prefix in the inputted record, by referring to ... and said attribute dictionary and by further referring to said co-occurrence word dictionary.” In other words, the “attribute dictionary” and the “co-occurrence word dictionary” both store “attribute information,” and other information, too, and the “omission completion means” refers to both of these dictionaries.

The Office Action refers to a passage at column 8, lines 22-38 for the “attribute dictionary” of claim 1 and to a passage at column 6, lines 21-29 for the “co-occurrence word dictionary.” It is noteworthy that the passage at column 8 is in the “Detail Description” portion of the Miller patent and that the passage at column 6 is in the “Summary of the Invention” section, since this suggests that the two passages may be referring to the same dictionary. At any rate, there is no teaching in the passages at columns 6 and 8 of two dictionaries, both storing the same type of information (“attribute information”) plus additional information.

The Office Action purports to find the "omission completion means" of claim 1 in a passage at column 5, lines 4-20 of the Miller reference. But this passage does not disclose something that refers to different dictionaries, each storing the same type of information ("attribute information") plus other information, and that adds a basic unit of measurement to a prefix.

The Office Action also refers to the passage at column 6 of the Miller patent, lines 19-29, for the "omission completion means" of claim 1. This, however, is the same passage that the Office Action identifies for the "co-occurrence word dictionary."

In view of the considerations discussed above, it is respectfully submitted that the invention defined by claim 1 is patentable over the references. Since the remaining claims depend from claim 1 and recite additional limitations to further define the invention, they are automatically patentable along with claim 1 and need not be further discussed.

Reconsideration of this application is respectfully requested.

Respectfully submitted,



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